

Appl. No. 09/728,242  
Response dated November 12, 2004  
Reply to Office Action of August 11, 2004

### **REMARKS**

Pursuant to 37 C.F.R. § 1.111, reconsideration of the present application in view of the following remarks is respectfully requested.

This response is timely in that the shortened statutory period was set to expire on November 11, 2004, which fell on a federal holiday, thus extending the period for reply until November 12, 2004.

Claims 1 - 20 are pending.

By way of the Office Action mailed August 11, 2004, claims 1, 4, 7 - 10, 12, 14 were rejected under 35 U.S.C. § 103 as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over U.S. Statutory Invention Registration Number H1298 to Ahr et al. (hereinafter referred to as Ahr) in view of U.S. Patent Number 4,397,644 to Matthews (hereinafter referred to as Matthews). This rejection is respectfully traversed to the extent that it may apply to the presently presented claims.

Ahr relates to absorbent structures including a fibrous superabsorbent core and an integrally attached hydrophobic facing layer (column 1, lines 10 - 12). Ahr notes the desirability of providing good contact between the hydrophobic facing layer and the absorbent core, and the desirability to provide an absorbent core having a low bulk (column 1, lines 21 - 26). As such, Ahr has a stated object to provide such a core having low bulk and yet a high absorbent capacity (column 1, lines 31 - 33).

Specifically, Ahr teaches that the absorbent core includes from about 5 percent to about 95 percent of superabsorbent fibers, and from about 5 percent to about 95 percent synthetic thermoplastic fibers (column 2, lines 28 - 32). The hydrophobic facing layer consists essentially of synthetic hydrophobic thermoplastic fibers (column 2, lines 32 - 34). The layers are integrally bonded by a thermal process (column 2, lines 37 - 38). Preferably the bonding is carried out with heated calender rolls or using ultrasonic sealing (column 2, lines 38 - 39). This has the additional advantage that during the bonding the bulk of the absorbent structure may be significantly reduced (column 2, lines 40 - 42). For example, the caliper of the absorbent structures may be reduced by a factor of 5 to 15 during the thermobonding process (column 2, lines 42 - 44). As such, the absorbent structures can be made very thin, i.e., having a thickness of less than about 2 millimeters, preferably less than about 1 millimeter, typically from about 0.3 to about 2 millimeters (column 3, lines 27 - 30).

Appl. No. 09/728,242  
Response dated November 12, 2004  
Reply to Office Action of August 11, 2004

It is noted that the Office Action asserts that "Ahr discloses an expandable absorbent material." Applicants' representative has been unable to locate any teaching within Ahr that the absorbent material described therein is expandable. It is also noted that the Office Action asserts that the absorbent material is fully capable of functioning as a surge material. Applicants' representative has been unable to locate any teaching within Ahr that the absorbent material described therein is fully capable of functioning as a surge material.

Additionally, it is noted that the Office Action asserts that Ahr teaches use of a binder at column 3, lines 3-4. Applicants note that column 3, lines 3-4 discuss a cross-linking agent for the superabsorbent polymers themselves. Furthermore, the Office Action asserts that Ahr discloses a binder that is a liquid at Col. 3, lines 6-7. Applicants submit that this citation does not refer to a liquid. A similar observation would also be made to the comments in the Office Action as to claim 10.

Matthews discloses a sanitary napkin having a fluid pervious cover and an absorbent matrix (column 3, lines 3 – 6). The absorbent matrix contains principal absorbent component characterized by relatively high fluid retention and a second component including comfort enhancement capabilities (comfort enhancement layer) positioned at least in part between the principal absorbent and the fluid permeable cover or wrap (column 3, lines 6 – 11). As such, the comfort enhancement layer increases the bulk of the absorbent matrix. Matthews teaches that the comfort enhancement layer has a thickness generally between about .1 to about 1 cm, i.e., **1 to about 10 mm** (column 6, lines 3 – 5). This thickness of the comfort enhancement layer is in addition to the thicknesses of the fluid pervious cover and the principal absorbent component. Matthews teaches that increased bulk is preferred, for example, teaching that the comfort enhancing layer can be formed by carding or it may be airlaid, however randomizing carding is preferred **because it increases bulk** (column 5, line 67 through column 6 line 1).

Thus, Ahr teaches that it is an object of the invention to provide an absorbent material having low bulk. Ahr teaches the importance of reducing the thickness of an absorbent structure to less than about 2 millimeters, preferably less than about 1 millimeter. Matthews, however, teaches away from reducing thickness, teaching inclusion in the absorbent core of an additional comfort enhancing layer having a thickness generally between about 1 and about 10 millimeters. The use of such a comfort enhancing layer in the absorbent structure of Ahr would increase the bulk of such a structure, even using the thickest material described by Ahr, by from 50 to 600 percent. Such divergent teachings with respect to the thickness of the absorbent

Appl. No. 09/728,242  
Response dated November 12, 2004  
Reply to Office Action of August 11, 2004

material would dissuade one of ordinary skill in the art from combining the teachings of these references. One of ordinary skill in the art would be much dissuaded and little motivated to combine the teachings of one reference touting the advantages of decreasing the thickness of the absorbent core with the teachings of another reference touting the advantages of increasing the thickness of the absorbent core. Because one skilled in the art would be much dissuaded and little motivated to combine these references, the cited combination does not support a *prima facie* case of obviousness. Consequently, the rejection should be withdrawn.

Claims 2, 5, and 6 were rejected under 35 U.S.C. § 103 as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Ahr in view of Matthews as applied to claim 1, and further in view of U.S. Patent Number 5,672,419 to Mukaida et al. (hereinafter referred to as Mukaida). This rejection is respectfully **traversed** to the extent that it may apply to the presently presented claims. Mukaida does not address the deficiencies associated with the combination of Ahr and Matthews described above. Therefore, for at least the reasons described above, the cited combination does not support a *prima facie* case of obviousness. Consequently, the rejection should be withdrawn.

Claim 3 was rejected under 35 U.S.C. § 103 as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Ahr in view of Matthews as applied to claim 1, and further in view of U.S. Patent Number 6,362,389 to McDowall et al. (hereinafter referred to as McDowall). This rejection is respectfully **traversed** to the extent that it may apply to the presently presented claims. McDowall does not address the deficiencies associated with the combination of Ahr and Matthews described above. Therefore, for at least the reasons described above, the cited combination does not support a *prima facie* case of obviousness. Consequently, the rejection should be withdrawn.

Claim 11 was rejected under 35 U.S.C. § 103 as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Ahr in view of Matthews as applied to claim 1. This rejection is respectfully **traversed** to the extent that it may apply to the presently presented claims. For at least the reasons described above, the cited combination does not support a *prima facie* case of obviousness. Consequently, the rejection should be withdrawn.

It is noted that the Office Action here sets forth that Ahr remains silent as to the expandability of the absorbent material. The Office Action further sets forth that the superabsorbent material

Appl. No. 09/728,242  
Response dated November 12, 2004  
Reply to Office Action of August 11, 2004

disclosed by Ahr is well known in the art to swell upon contact with liquid. Applicants note, however, that while the absorbent material of Ahr includes superabsorbent material, the absorbent material is not necessarily expandable. For example, the combination of the thermoplastic fibers in the absorbent material and the prescribed bonding conditions could possibly inhibit or preclude expandability of the Ahr absorbent material.

Claims 13 and 15 were rejected under 35 U.S.C. § 103 as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Ahr in view of Matthews as applied to claim 1, and further in view of U.S. Patent Number 5,350,370 to Jackson et al. (hereinafter referred to as Jackson). This rejection is respectfully traversed to the extent that it may apply to the presently presented claims. Jackson does not address the deficiencies associated with the combination of Ahr and Matthews described above. Therefore, for at least the reasons described above, the cited combination does not support a *prima facie* case of obviousness. Consequently, the rejection should be withdrawn.

For the reasons stated above, it is respectfully submitted that all of the presently presented claims are in form for allowance.

Please charge any prosecutorial fees which are due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875.

The undersigned may be reached at: 770-587-8626.

Respectfully submitted,

CREAGAN ET AL.

By: 

Richard M. Shane  
Registration No.: 50,921  
Attorney for Applicant(s)

#### Certificate of Transmission

I, Richard M. Shane, hereby certify that on November 12, 2004 this document is being facsimile transmitted to the Commissioner for Patents, United States Patent and Trademark Office, fax number 703-872-9306.

By: 

Richard M. Shane